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## NOTICE OF ALLOWANCE AND FEE(S) DUE

27045 7590 ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024 05/11/2012

EXAMINER

VU, TUAN A

ART UNIT PAPER NUMBER

2193

DATE MAILED: 05/11/2012

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,332	03/09/2007	Johan Eker	P19142-US3	2736

TITLE OF INVENTION: FLASH MEMORY PROGRAMMING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1740	\$300	\$0	\$2040	08/13/2012

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u> SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

## PART B - FEE(S) TRANSMITTAL

## Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

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appropriate. All further indicated unless correct maintenance fee notifica	correspondence includir ed below or directed oth	ng the Patent, advance on herwise in Block 1, by (	orders and notification (a) specifying a new co	of m	naintenance fees will pondence address; a	l be mailed to the current nd/or (b) indicating a sepa	correspondence address as trate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)  27045 7590 05/11/2012  ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.  Certificate of Mailing or Transmission  I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.			
				_			(Signature) (Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR	F	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,332 TITLE OF INVENTION	03/09/2007 I: FLASH MEMORY PR	ROGRAMMING	Johan Eker			P19142-US3	2736
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSUE I	FEE TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1740	\$300		\$0	\$2040	08/13/2012
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	3			
VU, T	U <b>AN A</b>	2193	717-168000				
<ol> <li>Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</li> <li>Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</li> <li>"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.</li> <li>ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON.</li> </ol>			(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.				
PLEASE NOTE: Un	less an assignee is ident th in 37 CFR 3.11. Comp		data will appear on th	he pa	tent. If an assignee assignment.		ocument has been filed for
Please check the appropr	riate assignee category or	categories (will not be p	rinted on the patent):		Individual 🖵 Corp	ooration or other private gro	oup entity Government
4a. The following fee(s) are submitted:  ☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies			4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)  ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).				
	s SMALL ENTITY state	us. See 37 CFR 1.27.				ENTITY status. See 37 Cl	
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if requeecords of the United Sta	uired) will not be accepte tes Patent and Trademarl	ed from anyone other th k Office.	nan th	ne applicant; a registo	ered attorney or agent; or th	e assignee or other party in
Authorized Signature					Date		
Typed or printed name			Registration No.				
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	tiality is governed by 35 d application form to the ions for reducing this butinginia 22313-1450. DO	CFR 1.311. The informati U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain 1.14. This collection is y depending upon the i ne Chief Information O COMPLETED FORMS	or restindiving	etain a benefit by the mated to take 12 mi idual case. Any com r, U.S. Patent and Tr r THIS ADDRESS.	public which is to file (and nutes to complete, includin ments on the amount of tin ademark Office, U.S. Dept SEND TO: Commissioner	I by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

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10/598,332	03/09/2007	Johan Eker	P19142-US3	2736
27045 75	90 05/11/2012		EXAM	INER
ERICSSON INC. 6300 LEGACY DE		VU, TUAN A		
M/S EVR 1-C-11	d ( L		ART UNIT	PAPER NUMBER
PLANO, TX 75024	1		2193	

**Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)** 

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1230 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1230 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## **Privacy Act Statement**

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No.	Applicant(s)	
	10/598,332	EKER, JOHAN	
Notice of Allowability	Examiner	Art Unit	
	TUAN VU	2193	
	TOAN VO	2190	
The MAILING DATE of this communication apperall claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this ap or other appropriate communicatior GHTS. This application is subject to	plication. If not included not will be mailed in due course. THIS	
1. $\square$ This communication is responsive to <u>4/23/12</u> .			
<ol> <li>An election was made by the applicant in response to a rest the restriction requirement and election have been incorporate</li> </ol>		he interview on;	
3. ☑ The allowed claim(s) is/are <u>17-18, 20-22, 24-30, 32-42 (rent</u>	<u>um 1-23)</u> .		
<ol> <li>Acknowledgment is made of a claim for foreign priority unde</li> <li>a)</li></ol>	er 35 U.S.C. § 119(a)-(d) or (f).		
1.   Certified copies of the priority documents have	been received.		
2.   Certified copies of the priority documents have	been received in Application No	·	
3. Copies of the certified copies of the priority doc	cuments have been received in this	national stage application from the	
International Bureau (PCT Rule 17.2(a)).			
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		complying with the requirements	
<ol> <li>A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give</li> </ol>			
6. CORRECTED DRAWINGS ( as "replacement sheets") must	be submitted.		
(a) including changes required by the Notice of Draftspers	on's Patent Drawing Review (PTO-	948) attached	
1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date			
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the C	Office action of	
Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the			
<ol> <li>DEPOSIT OF and/or INFORMATION about the deposit of B attached Examiner's comment regarding REQUIREMENT FC</li> </ol>			
Attachment(s)	E □ Nation - £ 1£ 1. 5	Octont Application	
<ol> <li>Notice of References Cited (PTO-892)</li> <li>D Notice of Draftperson's Patent Drawing Review (PTO-948)</li> </ol>	5. Notice of Informal F		
2. Involice of Diariperson's Faterit Drawing Neview (F10-946)	6. ☐ Interview Summary Paper No./Mail Da	te	
<ol> <li>Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date</li> </ol>	7. 🔲 Examiner's Amendr	nent/Comment	
4. Examiner's Comment Regarding Requirement for Deposit	8. 🛛 Examiner's Stateme	ent of Reasons for Allowance	
of Biological Material	9.		
/Tuan A Vu/			
Primary Examiner, Art Unit 2193			

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## **DETAILED ACTION**

1. This action is responsive to the Applicant's response filed 4/23/12.

As indicated in Applicant's response, claims 17-18, 20-22, 24-30, 32-42 are pending in the office action.

### EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

2. Claims 17-18, 20-22, 24-30, 32-42 are allowed.

The following is an examiner's statement of reasons for allowance.

A) The **prior art** taken separately or jointly does not suggest or teach the following features.

A method for transforming at least one updated source code module into an updated program code version to be stored in the memory, which memory has stored thereon a current program code version occupying a first set of the memory sectors of the memory, wherein the updated program code version occupies a second set of memory sectors when stored in the memory; the method comprising:

(i) receiving a representation of the current program code version, and performing at least one optimization step adapted to decrease the number of memory sectors of the second set of memory sectors occupied by the updated code version that are different from the corresponding memory sectors of the first set of memory sectors occupied by the current program code version, and controlling the at least one optimization step by at least one optimization parameter, wherein the at least one optimization parameter includes a maximum bound on allowed padding space that a linker is allowed to introduce or a maximum number of relays that the linker is allowed to introduce (\*); and

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(ii) wherein the performing at least one optimization step, further comprises the steps of generating feedback data during a linking step for linking the number of object modules, recompiling at least a subset of the source code modules based on the feedback data and resulting in a number of modified object modules, and performing a linking step based on the number of modified object modules; all of which recited in claims 17, 29, 41.

Liu, 2004/0068719, discloses optimization to obviate size storage or execution delay for overusing long data (see para 0002-0004) in favor of short data allocation (see para 0008, pg. 1) where large amount of otherwise long data is allocated to short data(allocates linkage tables... allocates data as short data – para 0053-0054, pg. 6) using section size information (para 0032) gathered by the first-pass plug-in invocations (Fig. 4B, 4C) to convert global data related to intermediate and real object to transform subsequent to the first pass linker, using linkage tables (para 0038) for short data to be used in procedure linkage (para 0051); but cannot (even in view of Greenbaum and Forin) disclose or render obvious control data (used by the optimization or a linker) as parameters being padding space with a bound and maximum of relays a linker can afford to introduce for the context of updating a memory with a received update source module.

**Greenbaum**, 6,077,315, discloses linker that encapsulates bit-streams for hardware configuration using an alignment approach at runtime where segments of bit-streams are configured using padding to conform to the HW constraints; but does not disclose update of memory sectors based on receiving an updated input code.

**Forin**, 7,543,309, discloses late binding with loading of a linked file into memory, the file including a number-filled padding between each section and a succeeding page boundary;

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hence does not disclose control data used by a linker within a update of memory sectors based on receiving an updated input code.

B) The changes to the claim have also overcome the outstanding **Double Patenting Rejection**, as '073 in view of APA and Sweeney cannot render obvious the language including 
padding bound and relay maximum as recited in (\*) from above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chat Do can be reached on (571)272-3721.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193

April 25, 2012